

Mr. Daniel F. Brown
Phend and Brown, Inc.
P.O. Box 218
Milford, Indiana 46542

Re: 049-11812
First Minor Permit Revision to
FESOP 049-6486-03137

Dear Mr. Brown:

Phend and Brown, Inc., was issued a Federally Enforceable State Operating Permit (FESOP) on December 11, 1996, for a stationary batch mix asphalt concrete source located in Disko, Indiana. A letter requesting changes to this permit was received on January 26, 2000. Pursuant to the provisions of 326 IAC 2-8-11.1 a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document and as follows (bold emphasis added to new language):

1. The Significant Permit Revision (049-9404-03137) was issued with an error in the page numbers on the revised pages. These pages (noted as 21, 21a, and 22) in the significant revision have been corrected in this Minor Permit Revision to be numbered 20, 20a, and 21, respectively, to be consistent with the page numbering of the original FESOP and the discussion of further changes to these pages herein.
2. The facility description in Item (a) of Section A.2 on Page 4 of the permit shall be revised to account for the replacement of the existing cyclone and wet scrubber with a baghouse as follows:
 - (a) one (1) asphalt batch dryer mixer, with a maximum capacity of 160 tons per hour, equipped with one (1) No. 4 fuel oil fired aggregate dryer burner with a maximum rated capacity of 75.6 million (MM) Btu per hour, using No. 2 fuel oil and waste oil as back-up fuels, and one (1) ~~cyclone/wet scrubber~~ **baghouse** dust collecting system for air pollution control, exhausting at one (1) stack, identified as SV1;
3. The following description of the new RAP feeder has been added as Item (m) of Section A.3 on Page 4 of the permit:
 - (m) **one (1) recycled asphalt product (RAP) feeder**
4. The facility description in Section D.1 at the top of Page 20 of the permit has been revised consistent with the changes to Item (a) of Section A.2 as detailed above (No. 2).

5. The PM10 limit in Item (b) of Condition D.1.1 on Page 20a of the permit has been revised from 21.73 pounds per hour to 17.82 pounds per hour because the original FESOP PTE calculations on which this limit was based incorrectly included fugitive dust controls in the limited PTE numbers. Fugitive dust controls are not considered Federally enforceable and should not be considered when determining the Limited PTE of the source. The following is the revised PM10 limit which is determined from the overall source limits established in Condition C.1 of the permit and the PTE PM10 from facilities not specifically limited (see the revised Limited PTE table in the TSD) :

(b) Pursuant to 326 IAC 2-8-4 (FESOP), the PM10 emissions from the mixing and drying operation shall not exceed ~~21.73~~ **17.82** pounds per hour.

6. The stack testing requirements in Condition D.1.5 on Page 21 of the permit have been revised as follows to provide for initial performance testing of the new baghouse control system:

D.1.5 Particulate Matter

~~During the period between 30 months and 36 months after issuance of this permit~~
Within 60 days after the unit reaches maximum production rate, but no later than 180 days after initial start-up with the new baghouse, the Permittee shall perform PM and PM10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, and opacity testing utilizing Method 9 or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM10 includes filterable and condensible PM10.

Note: the *italicized and underlined* additional language, above, was added to Condition D.1.5 in the Addendum to the TSD for Permit Revision 049-9404 issued May 27, 1998. This language was mistakenly left out of the final revised permit pages and this typographical error is being corrected in this succeeding revision.

7. The compliance monitoring provisions in Condition D.1.7 on Page 21 of the permit have been revised due to the replacement of the wet scrubber with a baghouse. The condition shall be changed as follows:

D.1.7 Pressure and Flow Rate Drop Readings

The Permittee shall take **total static** pressure ~~and scrubbing liquid (water) flow rate drop~~ readings across the ~~wet scrubber~~ **baghouse** controlling the mixing and drying operation, at least once ~~per working shift a day~~ when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the ~~wet scrubber~~ **baghouse** shall be maintained within the range of ~~11.0 and 16.0~~ **1.0 and 8.0** inches of water ~~and the flow rate for scrubbing liquid shall be maintained within the range of 225 to 275 gallons per minute or a range and flow rate established during the latest stack test.~~ The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading ~~or flow rate~~ is outside of this range for any one reading.

The instrument used for determining the pressure shall comply with Condition C.11 - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

The inlet temperature to the baghouse shall be maintained within a range of 200-

400 degrees Fahrenheit (°F) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

Note: Condition D.1.8 has been moved to Page 22 to provide space for the changes outlined above.

6. Condition D.1.9 on Page 22 of the permit has been changed to be consistent with the replacement of the wet scrubber with a new baghouse as follows:

D.1.9 ~~Wet Scrubber~~ **Broken Bag or Failure Detection**

~~In the event that the wet scrubber~~ **bag failure** is observed to be operating with a static pressure drop or a liquid flow rate below the low end range for more than two (2) hours during production:

- (a) ~~Troubleshooting shall be implemented and corrective action shall be taken within eight (8) hours of discovery.~~ **The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.**
- (b) ~~If the corrective action does not correct the problem, then additional corrective actions shall be devised within eight (8) hours of discovery and shall include a timetable for completion.~~ **Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Preventive Maintenance Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.**
- (c) ~~For a complete failure of the water supply system to the wet scrubber, the asphalt mixing and drying operations shall be shut down immediately until the supply of water has been restored.~~

7. Condition D.1.10 (Preventive Inspections) on Page 22 of the permit has been removed because it is specific to the wet scrubber control system which is being removed.
8. Condition D.1.12 starting on Page 22 of the permit has been revised as follows to remove recordkeeping requirements associated with the wet scrubber control system and make the remaining provisions consistent with the baghouse monitoring requirements:

D.1.12 Operational Parameters

The Permittee shall maintain a daily record for the ~~cyclone/wet scrubber system~~ **baghouse** controlling particulate matter emissions from asphalt mixing and drying operations of the following values:

- (a) ~~Inlet and outlet differential~~ **Total static pressure drop readings;**
- (b) ~~Scrubbing liquid flow rate~~ **Baghouse inlet temperature readings;**
- (c) Visible observations;
- (d) Checklist with dates and initials for each preventive action performed; and
- (e) Records of corrective actions.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Janusz Johnson, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for extension (2-8325), or dial (317) 232-8325.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

JKJ

cc: File - Fulton County
U.S. EPA, Region V
Fulton County Health Department
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 1-800-451-6027

Phend & Brown, Inc. Fulton Wabash County Line Road 0.5 MI. N. of SR 114 near Disko, Indiana 46927

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F049-6486-03137	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: December 11, 1996

First Significant Permit Modification No. 049-9404-03137, issued May 27, 1998.

First Minor Permit Revision: 049-11812	Pages Affected: 4, 20, 20a, 21, 22
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

A.1 General Information

The Permittee owns and operates a hot batch mix asphalt concrete source.

Responsible Official: Daniel F. Brown
Source Address: Fulton Wabash County Line Road, 0.5 mile north of State Road 114
near Disko, Indiana 46927
Mailing Address: P. O. Box 150, Milford, Indiana 46542-0150
SIC Code: 2951
County Location: Fulton
County Status: Attainment for all criteria pollutants
Source Status: Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

The stationary source consists of the following emission units and pollution control devices:

- (a) one (1) asphalt batch dryer mixer, with a maximum capacity of 160 tons per hour, equipped with one (1) No. 4 fuel oil fired aggregate dryer burner with a maximum rated capacity of 75.6 million (MM) Btu per hour, using No. 2 fuel oil and waste oil as back-up fuels, and one (1) baghouse dust collecting system for air pollution control, exhausting at one (1) stack, identified as SV1;
- (b) one (1) 5' x 10' 3-deck screen;
- (c) two (2) conveyors to transfer aggregates from feed bins to asphalt dryer; and
- (d) production of cold-mix (stock pile mix) asphalt concrete.

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) one (1) distillate No. 2 fuel oil fired liquid asphalt tank heater, with a maximum capacity of 1.4 million British thermal units per hour, exhausting at one (1) stack, identified as SV2;
- (b) four (4) raw aggregate storage piles with a total storage capacity of 22,000 tons;
- (c) one (1) reclaimed asphalt pavement storage pile with a total storage capacity of 3,200 tons;
- (d) one (1) 1,000 gallon No. 2 fuel oil storage tank identified as SV3;
- (e) two (2) 10,000 gallon asphalt cement storage tanks identified as SV4 and SV5;
- (f) one (1) 10,000 gallon asphalt emulsion storage tank identified as SV6;
- (g) one (1) 8,000 gallon No. 4 fuel oil storage tank identified as SV7;
- (h) one (1) 8,000 gallon No. 2 fuel oil storage tank identified as SV8;
- (i) one (1) reclaimed asphalt storage bin with conveyor;
- (j) unpaved roads with public access;
- (k) four (4) virgin aggregate feeder bins; and
- (l) one (1) bucket elevator with 18" x 8" buckets.
- (m) one (1) recycled asphalt product (RAP) feeder

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

SECTION D.1 FACILITY OPERATION CONDITIONS

- (a) one (1) asphalt batch dryer mixer, with a maximum capacity of 160 tons per hour, equipped with one (1) No. 4 fuel oil fired aggregate dryer burner with a maximum rated capacity of 75.6 million British thermal units per hour, using No. 2 fuel oil and waste oil as back-up fuels, and one (1) baghouse dust collecting system for air pollution control, exhausting at one (1) stack, identified as SV1;
- (b) one (1) 5' x 10' 3-deck screen; and
- (c) two (2) conveyors to transfer aggregates from feed bins to asphalt dryer.

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

General Construction Conditions [326 IAC 2-1-3.2]

D.1.1a This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2a Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.1.3a Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM, may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.

D.1.4a All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

D.1.5a This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management
Permit Administration & Development Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

- (c) The permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

Emissions Limitations and Standards [326 IAC 2-8-4(1)] [326 IAC 6-3] [326 IAC 12] [40 CFR Part 60.90]

D.1.1 Particulate Matter

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the mixing and drying operation shall not exceed 56.1 pounds per hour.
- (b) Pursuant to 326 IAC 2-8-4 (FESOP), the PM10 emissions from the mixing and drying operation shall not exceed 17.82 pounds per hour.

D.1.2 Sulfur Dioxide (SO₂)

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 75.6 million Btu per hour burner for the aggregate dryer shall be limited to 0.5 and 1.6 pounds per million Btu heat input for No. 4 (or No. 2) fuel oil and waste oil, respectively. This is equivalent to a sulfur content of less than or equal to 0.50 percent when using No. 4 (or No. 2) fuel oil and 1.49 percent when using waste oil, respectively. Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown and malfunction.

D.1.3 No. 4 Fuel Oil Usage

The input of No. 4 fuel oil to the 75.6 million British thermal units per hour burner for the aggregate dryer based on a maximum fuel oil sulfur content of 0.50 percent shall be limited, to 2,413,763 U.S. gallons per twelve (12) consecutive months. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous 12 months. For purposes of determining compliance, when backup fuels are burned, the following equivalency calculations shall be performed:

- (a) each gallon of No.2 fuel oil burned based on a maximum fuel oil sulfur content of 0.50 percent is equivalent to 0.947 gallons of No. 4 fuel oil burned;
- (b) each million cubic foot (MMCF) of natural gas burned is equivalent to 5,780.6 gallons of No. 4 fuel oil burned; and
- (c) each gallon of waste oil burned based on a maximum fuel oil sulfur content of 1.2 percent is equivalent to 2.42 gallons of No. 4 fuel oil burned.

The total amount of No. 4 fuel oil and No. 4 fuel oil equivalence combined shall not exceed the limit specified. During the first twelve (12) months of operation under this permit, the No. 4 fuel oil and No. 4 fuel oil equivalent combined shall be limited such that the total gallons divided by the accumulated months of operation shall not exceed 201,147 U.S. gallons per month. Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.4 Preventive Maintenance Plan [326 IA. 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility.

D.1.4.1 NSPS Requirements [40 CFR 60.90, Subpart I]

- (a) On and after the date on which a performance test is required to be conducted by §60.8 is completed, no owner or operator shall discharge or cause the discharge into the atmosphere from the 75.6 mmBtu/hr burner any gases which
- (1) contain particulate matter in excess of 90mg/dscm (0.04 gr/dscf);

- (2) exhibit 20 percent opacity or greater.

Testing Requirements [326 IAC 2-8-4(3)]

D.1.5 Particulate Matter

Within 60 days after the unit reaches maximum production rate, but no later than 180 days after initial start-up with the new baghouse, the Permittee shall perform PM and PM10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, and opacity testing utilizing Method 9 or other methods as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10.

D.1.6 Sulfur Dioxide Emissions and Sulfur Content

The Permittee shall test for:

- (a) Sulfur content of oil burned as fuel by the 75.6 million Btu per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 19 for each load of oil delivered; or
- (b) Sulfur dioxide emissions from the 75.6 million Btu per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 6 each time a test to comply with Condition D.1.4 is performed.

Sulfur content tests may be made by the oil supplier.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.7 Pressure Drop Readings

The Permittee shall take total static pressure drop readings across the baghouse controlling the mixing and drying operation, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.

The instrument used for determining the pressure shall comply with Condition C.11 - Pressure Gauge Specifications, be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit (oF) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.

D.1.8 Daily Visible Emission Notations

Daily visible emission notations of the conveyers, material transfers, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. For processed operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation specified condition prescribing visible emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.9 Broken Bag or Failure Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.
- (b) Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Preventive Maintenance Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion.

D.1.10 ***** This condition has been removed *****

D.1.11 Fuel Oil Sampling and Analysis

Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of each load delivered is acceptable, in lieu of the above, if accompanied by a certification.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.12 Operational Parameters

The Permittee shall maintain a daily record for the baghouse controlling particulate matter emissions from asphalt mixing and drying operations of the following values:

- (a) Total static pressure drop readings;
- (b) Baghouse inlet temperature readings;

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Phend and Brown, Inc.
Source Location:	Fulton Wabash County Line Road 0.5 Mile N. of S.R. 114, Disko, Indiana 46927
County:	Fulton
SIC Code:	2951
Operation Permit No.:	F049-6486-03137
Operation Permit Issuance Date:	December 11, 1996
Permit Revision No.:	049-11812-03137
Permit Reviewer:	Janusz Johnson

The Office of Air Management (OAM) has reviewed a revision application from Phend and Brown, Inc., relating to the following change to the control and handling equipment at the asphalt batch plant:

- (a) The existing cyclone and wet scrubber for air pollution control on the aggregate drum mix dryer will be replaced with a with one (1) baghouse; and
- (b) One (1) recycled asphalt product (RAP) feeder will be added to the plant.

Existing Approvals

The source was issued a Federally Enforceable State Operating Permit F049-6486-03137 on December 11, 1996.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 26, 2000.

Emission Calculations

The change to a baghouse to control particulate matter from the drying and mixing process will decrease the potential to emit (PTE) of the source after controls because the baghouse has a higher overall control efficiency than the wet scrubber it replaces. The following calculations determine the change in controlled emissions based on the uncontrolled particulate matter PTE determined for the aggregate dryer burner and batch dryer/mixer in the FESOP (F049-6486-03137):

Uncontrolled PM and PM10 emissions from the aggregate dryer burner and the drying and mixing operations:

PM = 22,513.39 tons per year
PM10 = 3,227.00 tons per year

Controlled PM and PM10 emissions from the aggregate dryer burner and the drying and mixing operations based on the existing cyclone and scrubber control (99.7% overall control efficiency):

PM = 22,513.39 tons per year * (1-0.997) = 67.54 tons per year
PM10 = 3,227.00 tons per year * (1-0.997) = 9.68 tons per year

Controlled PM and PM10 emissions from the aggregate dryer burner and the drying and mixing operations based on the new baghouse control (99.9% overall control efficiency):

PM = 22,513.39 tons per year * (1-0.999) = 22.51 tons per year
PM10 = 3,227.00 tons per year * (1-0.999) = 3.23 tons per year

There will be no change in PTE associated with the addition of the recycled asphalt product (RAP) feeder. A new feeder allows the plant to vary the composition of the asphalt concrete product further, but does not change the maximum capacity of the plant to produce product.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

There will be no increase in potential to emit (PTE) due to the changes requested because the baghouse will be more efficient than the cyclone and wet scrubber at controlling particulate matter and the addition of a RAP feeder will not change the production capacity of the plant.

Justification for Revision

The Federally Enforceable State Operating Permit (FESOP) is being modified through a Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(d)(3) because the modification involves a pollution control project as defined in 326 IAC 2-1.1-1 that does not increase the potential to emit of any regulated pollutant greater than the thresholds under subsection (e)(1), but requires a significant change in the method or methods to demonstrate or monitor compliance. The potential to emit (PTE) from the modification is less than the thresholds established in 326 IAC 2-8-11.1(f)(1); therefore, a Significant Permit Revision is not required.

Potential to Emit of Modification After Issuance

The table below summarizes the source's revised potential to emit, reflecting all limits, of the significant emission units after controls. The source has accepted federally enforceable emission limitations for sulfur dioxide (SO₂) of 91.0 tons per year by limiting annual consumption of fuel oil and volatile organic compounds (VOC) of 91.0 tons per year by limiting the cold mix storage production. Changes to the controlled PTE based on the new baghouse are bolded for emphasis.

	Limited PTE (tons/yr)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NOx	HAPs
combustion	0.09	0.07	91.00	0.51	6.59	26.37	0.00
aggregate drying	22.42	3.15	0.00	2.40	0.00	0.00	2.40
cold mix	0.00	0.00	0.00	88.04	0.00	0.00	0.00
conveying/handling **	0.33	0.16	0.00	0.00	0.00	0.00	0.00
unpaved roads **	20.35	7.12	0.00	0.00	0.00	0.00	0.00
storage **	0.28	0.10	0.00	0.00	0.00	0.00	0.00
Total Emissions	43.47	10.50	91.00	90.95	6.59	26.37	2.40

** For the purposes of Part 70 review, fugitive dust controls have not been included in this limited PTE table because they are not considered Federally Enforceable. The PTE in the original FESOP TSD incorrectly included fugitive controls.

Federal Rule Applicability

There is no change in the applicable Federal rules for this facility as a result of the changes to the control system:

- (a) The hot mix asphalt source is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90 through 60.93, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities". The source was constructed in 1965, which predates the applicability of Subpart I. Also, the change from a cyclone and wet scrubber to a baghouse for particulate matter control and the addition of a new RAP feeder are not considered a modification as defined in 40 CFR 60.2 because there is no increase in emissions associated with the project; therefore, the source is still not subject to the requirements of Subpart I.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability

There is no change to the applicable State rules as a result of the change from a cyclone and wet scrubber to a baghouse. The following applicable rule analysis has been revised to reflect the new control (changes are bolded for emphasis):

326 IAC 6-3 (Process Operations)

The asphalt mixing and drying operation is subject to 326 IAC 6-3-2 (Particulate Emission Limitations). Pursuant to this rule, particulate matter emissions shall not exceed 56.1 pounds per hour. **The source will comply with the requirements under 326 IAC 6-3-2 by utilizing a baghouse dust collection system for controlling particulate matter emissions to 5.14 pounds per hour.**

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Some of the compliance monitoring requirements applicable to this source have changed. The monitoring requirements for the control have been revised as a result of replacing the cyclone and wet scrubber with a baghouse. The revised compliance monitoring requirements are as follows:

The drying and mixing operation has applicable compliance assurance monitoring conditions as specified below:

- (a) The Permittee shall take total static pressure drop readings across the baghouse controlling the drying operation, at least once a day when the mixing and drying process is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 and 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.
- (b) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit (°F) to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. In the event that bag failure has occurred due to rupture, melting, etc., corrective action shall be taken. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the inlet temperature reading is outside of the above mentioned range for any one reading. The baghouse shall shutdown for visual inspection within 24 hours and bags shall be replaced as needed.
- (c) Daily visible emissions observations of the dryer stack shall be performed by a

trained employee, i.e., an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions. The employee will record whether the emissions are normal or abnormal, and if the reading is abnormal, corrective action shall be taken in accordance with the Preventive Maintenance Plan.

These monitoring conditions are necessary because the baghouse for the drying and mixing process must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The changes to the control equipment shall be subject to the conditions of the attached proposed **Minor Permit Revision No. 049-11812-03137**.